

CLAIMS

1. A multicast information broadcasting method
extended from a local multicast information
5 broadcast on an originating site to a roaming
terminal user belonging to this originating site,
to at least one separate site hosting this roaming
terminal and linked to this originating site by
the IP network, the local multicast information
10 broadcast being generated by an information
broadcasting source located at a first local
multicast information broadcasting address in this
originating site, characterized in that the latter
consists, after interconnecting said roaming
15 terminal to the IP network on this separate site,
in:
- a) transmitting, from the roaming terminal to the
originating site, an extended multicast
information broadcast request message, said
20 request message containing at least said first
local multicast information broadcasting
address and an identification code of said
roaming terminal; and, following the
identification of said roaming terminal by said
25 originating site,
 - b) transmitting, from the originating site to said
roaming terminal, a message offering access to
a global multicast information broadcast, said
message offering access including at least one
30 second global multicast information
broadcasting address, the broadcasting source
of which is identified in the originating site;
and, following the receipt of said message
offering access by said roaming terminal,
 - 35 c) transmitting from the roaming terminal to the
originating site, via the IP network, a message
accepting the offer of access to the
information being broadcast at said second
global multicast information broadcasting

address; and, after receipt of the message accepting the offer of access on said originating site;

5 d) transferring the information to be broadcast from the first to the second broadcasting address; and

10 e) transmitting, by global multicast broadcast, the information to be broadcast under the second address, which enables said roaming terminal interconnected to the separate site to receive, on the separate site, the information being broadcast under the first local broadcasting address, broadcast under the second global broadcasting address.

15

2. The method as claimed in claim 1, characterized in that the steps a), b) and c) for transmission between the roaming terminal and the originating site, of the extended multicast broadcast request message, of the message offering access to a global multicast broadcast, or of the message accepting the offer of access are executed in point-to-point mode.

20

25 3. The method as claimed in claim 1 or 2, characterized in that the step e) for global multicast transmission is performed in point-multipoint mode.

30 4. The method as claimed in one of claims 1 to 3, characterized in that, for an originating site including a broadcast server connected to the IP network via a router, the step consisting in transferring the information to be broadcast from the first to the second broadcasting address includes:

35

- a step for local multicast broadcasting of the information to be broadcast from the broadcast server to said router;

- a step for redirecting the information to be broadcast by substituting the second global multicast broadcasting address for the first local broadcasting address.

- 5
- 10
- 15
- 20
- 25
- 30
- 35
5. The method as claimed in one of claims 1 to 4, characterized in that, for a plurality of extended multicast broadcast request messages relating to one and the same first local multicast broadcasting address emanating from a plurality of roaming terminals belonging to said originating site and each interconnected to the IP network on a separate site, said step e), consisting in transmitting, by global multicast broadcast, the information to be broadcast under the second address consists in creating a global multicast broadcast tree, the root element of which consists of one of the routers common to the broadcast branches making up this global multicast broadcast tree.
 6. The method as claimed in one of claims 1 to 5, characterized in that, said second address being maintained and validated for a local multicast information broadcast to said first address, said step d) consisting in transferring the information to be broadcast from the first to the second broadcasting address is deleted for any extended multicast broadcast request message to this second address following the first extended multicast broadcast request message to said second address.
 7. A multicast information broadcasting system extended, from a local multicast broadcast on an originating site to a roaming workstation user belonging to this originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, the local multicast information broadcast

being generated by an information broadcasting source located at a first local multicast broadcasting address in this originating site, characterized in that said system includes at least, at said originating site:

- 5 - a means of receiving an extended multicast information broadcast request message, sent by said roaming terminal from said separate site, said request message containing at least said
10 first local multicast information broadcasting address and an identification code of said roaming terminal, said reception means being used for the identification of said roaming terminal by the originating site;
- 15 - a means of transmitting, from the originating site to the roaming terminal, a message offering access to a global multicast information broadcast, said message offering access
20 including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site;
- a means of receiving a message accepting the offer of access to the information being
25 broadcast at said second global multicast information broadcasting address, sent by said roaming terminal;
- a means of transferring the information to be broadcast from the first to the second
30 broadcasting address;
- a means of transmission, by global multicast information broadcast, of the information to be broadcast under the second address.

- 35 8. The system as claimed in claim 7, characterized in that said means of receiving an extended multicast broadcast request message, of transmitting, from the originating site to the roaming terminal, a message offering access to a global multicast

broadcast, of receiving a message accepting the offer of access to the information being broadcast at said second global multicast broadcasting address, of transferring the information to be broadcast from the first to the second broadcasting address, of transmitting, by global multicast broadcast, the information to be broadcast under the second address, are formed by software modules.

9. The system as claimed in claim 8, characterized in that said software modules are located on a dedicated machine interconnected by IP local area network on the originating site.

10. The system as claimed in claim 8, characterized in that, said originating site including a broadcast server connected to the IP network via a router, said software modules are located in said router.

11. A roaming terminal equipped to implement the multicast information broadcasting method extended, from a local multicast information broadcast on an originating site, to which this roaming terminal belongs, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site, characterized in that said roaming terminal includes at least, stored in the mass memory of the latter:

- a software module for creating and transmitting an extended multicast information broadcast request message, this request message containing at least one first local multicast information broadcasting address and an identification code of this roaming terminal;

- 5 - a software module for receiving and reading a message offering access to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site;
- 10 - a software module for creating and transmitting to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address.
- 15 12. A software product for the implementation, by a roaming terminal type computer, of the multicast information broadcasting method extended, from a local multicast broadcast on an originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, the local multicast information broadcast being generated by an information broadcasting source located at a first multicast information broadcasting address in this originating site, as claimed in one of claims 1 to 20 6, characterized in that it includes, for invoking on said roaming terminal:
 - 25 - a software module for creating and transmitting an extended IP multicast information broadcast request message, this request message containing at least a first local multicast information broadcasting address and an identification code of this roaming terminal;
 - 30 - a software module for receiving and reading a message offering access to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address, the 35

broadcasting source of which is identified in the originating site;

- a software module for creating and transmitting to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address.

10 13. A software product for the implementation, by a computer, of the multicast information broadcasting method extended, from a local multicast broadcast on an originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, from an information broadcasting source located at a first local multicast information broadcasting address in this originating site, as claimed in one of claims 1 to 20 6, characterized in that it includes, for invoking on said originating site:

- a software module for receiving an extended IP multicast information broadcast request message sent by the roaming terminal from the separate site, this request message including at least the first local multicast information broadcasting address and an identification code of said roaming terminal, said receiving software module being used for the identification on the separate site of said roaming terminal by the originating site;

- a software module for transmitting from the originating site, to the roaming terminal, a message offering access to a global multicast information broadcast, said message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site;

- a software module for receiving a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address, sent by said roaming terminal;
 - a software module for transferring the information to be broadcast from the first to the second broadcasting address;
 - a software module for transmitting by global multicast information broadcast, the information to be broadcast under said second address.
14. The software product as claimed in claim 13, characterized in that, for an originating site including a router, said software modules are stored in a mass memory of said router.